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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,140	01/16/2004	Tonny Yu	100103-001300US	7217
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Trellis Intellectual Property Law Group, PC 1900 EMBARCADERO ROAD SUITE 109 PALO ALTO, CA 94303			EXAMINER PARK, JEONG S	
			ART UNIT 2154	PAPER NUMBER
			NOTIFICATION DATE 03/31/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/760,140	Applicant(s) YU, TONNY	
	Examiner JEONG S. PARK	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/11/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to communications filed 7 January 2008.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 8, 10 and 13-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glass et al. (hereinafter Glass)(U.S. pub. No. 2005/0060643 A1) in view of Rounthwaite et al. (hereinafter Rounthwaite)(U.S. Patent No. 7,249,162 B2), and further in view of Horvitz et al. (U.S. Pub. No. 2004/0039786 A1).

Regarding claims 1 and 21-23, Glass teaches as follows:

a method for classifying email messages (system employs a case-based method of classifying email messages, see, e.g., page 16, paragraph [0195]), the method comprising:

using a plurality of modules (document handprinting process, see, e.g., page 19, paragraph [0240]) to determine a level of sameness (highest level of resemblance) of a particular email message (unclassified document) with one or more prior email messages (a set of previously classified documents), wherein the level of sameness is derived for the particular email message from a weighting of the outputs of the modules (see, e.g., page 16, paragraph [0196], lines 1-6); and

using the level of sameness (level of resemblance) for the particular email message (unclassified document) to classify the particular email message into a category (classification)(based on resemblance level message classifier, 156 in figure 1, assigns a classification, null classification or other non-specific classification to the unclassified document, see, e.g., page 16, paragraph [0200]).

Glass teaches all the limitations of claim except for using a plurality of modules to determine the level of sameness.

Rounthwaite teaches as follows:

a system and method that facilitates employment of an available filter best suited to identify junk/spam messages (see, e.g., col. 2, lines 31-34);

determining a performance level (false positive rate and false negative rate) for each of the modules (new filter and a seed filter) and (new filter is evaluated according to the false positive rate and the false negative rate associated with the seen filter, see, e.g., col. 2, lines 39-44);

comparing performance levels (comparing the false positive and negative rates of both of the new filter and the seed filter, see, e.g., col. 2, lines 45-49);

selecting a most appropriate one of the secondary filters based on the false positive and negative rates in connection with a particular task (see, e.g., col. 5, lines 29-32);

system message routing component (806 in figure 8) includes a load balancing capability to route messages between the filter systems (see, e.g., col. 17, lines 43-46); and

load control can be performed according to the false positive and negative rate of a particular system in order to route the messages between the filter systems (see, e.g., col. 18, lines 42-47).

Therefore Rounthwaite inherently teaches adjusting a weighting (routing factor) of at least one module in response to comparing performance levels (false positive rate and false negative rate).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Glass to include a plurality of filtering modules as taught by Rounthwaite in order to effectively select one of the plurality of filters based on the performance of each filter depending on the message type.

Glass-Rounthwaite do not expressly disclose the use of multiple email modules to determine a level of sameness by combining the outputs of at least two modules. In analogous art, Horvitz et al. discloses another email classification system which discloses:

assigning urgency or importance scores as well as bulk scores (the examiner interpreted the scores as the applicant's weighting) to one or more communications items or messages. Respective items or messages are then sorted and/or filtered according to the assigned scores. The subject invention provides for a multi-level cascade and/or parallel combinations (it combines at least two of the plurality of filters

with non-zero weighting) with respect to sorting or filtering message (see, e.g., page 1, paragraph [0009]);

weighting component (220 in figure 2) to determine whether a respective message is of the bulk or non-bulk variety (see, e.g., page 3, paragraph [0035]);

the expected urgency of email can be computed by performing an urgency analysis and then re-weighting it at weighting component by considering the likelihood that the email is bulk email (determining a level of sameness of the bulk email, see, e.g., page 3, paragraph [0037]); and

different types of filters (equivalent to applicant's plurality of modules, see, e.g., page 4, paragraph [0045], lines 3-7) can be used in various combinations. This can include parallel combinations of filters, serial combinations and/or combinations having some serial elements and some parallel elements (combining the plurality of filters to determine the classification of the email, see, e.g., page 4, paragraph [0045]).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Horvits et al. with Glass in view of Rounthwaite in order to efficiently sort or filter the email message automatically.

Regarding claim 2, Glass teaches as follows:

comparing the number of email messages classified in the category with a predetermined number (a given threshold); and

if the number of email messages is greater than the predetermined number then classifying the category as a first category type (classified as spam), else " classifying

the category as a second category type (null classification or inbox)(when a count of messages that are in same to each other reaches or exceeds a given threshold, messages that match can be classified as spam, see, e.g., page 4, paragraph [0061], lines 1-8).

Regarding claim 3, Glass teaches as follows:

the first category type is bulk email (classified as spam)(when a count of messages that are in same to each other reaches or exceeds a given threshold, messages that match can be classified as spam, see, e.g., page 4, paragraph [0061], lines 1-8).

Regarding claim 4, Glass teaches as follows:

accepting a signal from a user input device (email client input device 176 in figure 1) to indicate processing of email messages in a category (email client device communicates with the server computer, 152 in figure 1, see, e.g., page 18, paragraph [0225] and figure 1).

Regarding claim 5, Glass teaches as follows:

the processing includes preventing the email messages in a category from being delivered to a user (similarity score value above a certain level may be automatically deleted at the email server, see, e.g., page 29, paragraph [0383], lines 23-30).

Regarding claim 6, Glass teaches as follows:

a category is commercial email (spam email)(when a count of messages that are in same to each other reaches or exceeds a given threshold, messages that match can be classified as spam, see, e.g., page 4, paragraph [0061], lines 1-8).

Regarding claim 8, Rounthwaite teaches as follows:

accepting a signal from a user input device to set a parameter and using the parameter to adjust a weighting (providing graphical user interface, which provides a plurality of user-selectable filter levels, see, e.g., col. 3, lines 4-9).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Glass to include a plurality of filtering modules as taught by Rounthwaite in order to effectively select one of the plurality of filters based on the performance of each filter depending on the message type.

Regarding claim 10, Glass teaches as follows:

a module analyzes similarity of text in an email message (detecting document similarity based on the resulting content chunks, see, e.g., page 16, paragraph [0199]).

Regarding claim 13, Glass teaches as follows:

a module uses a hash of information in an email message (MD5 hashing algorithm used in order to convert each message body finger to a short, fixed-length digest value, see, e.g., page 23, paragraph [0305]).

Regarding claim 14, Glass teaches as follows:

a message classification in a bulk category includes a determination of whether the number of email messages in a category exceed a predetermined number (when a

count of messages that are in same to each other reaches or exceeds a given threshold, messages that match can be classified as spam, see, e.g., page 4, paragraph [0061], lines 1-8), the method further comprising:

submitting email messages in the bulk category (unclassified messages) to analysis to determine a level of commercial text (level of resemblance)(comparing the unclassified messages with a set of previously collected and classified bulk email messages samples in order to determine a highest level of resemblance, see, e.g., page 16, paragraph [0196], lines 1-6).

Regarding claim 15, Glass teaches as follows:

preventing messages with a predetermined level of commercial text from being sent to an intended recipient (similarity score value above a certain level may be automatically deleted at the email server, see, e.g., page 29, paragraph [0383], lines 23-30).

Regarding claim 16, Glass teaches as follows:

intercepting email messages from being sent to an intended recipient (new email message received by the email server, 154 in figure 1, is passed to the message classifier, 156 in figure 1, instead of passing to the email client, 170 in figure 1, see, e.g., page 29, paragraph [0371]);

collecting the intercepted messages for a period of time (handprints of intercepted messages are stored in a database table for predetermined one hour which means collecting the handprints for one hour, see, e.g., page 30, paragraph [0391]);
and

determining whether the collected messages are bulk messages, and if so, submitting the email messages in the bulk category to analysis to determine a level of commercial text (comparing the unclassified messages with a set of previously collected and classified bulk email messages samples in order to determine a highest level of resemblance, see, e.g., page 16, paragraph [0196], lines 1-6).

Regarding claim 17, Glass teaches as follows:

preventing messages with a predetermined level of commercial text from being sent to an intended recipient (similarity score value above a certain level may be automatically deleted at the email server, see, e.g., page 29, paragraph [0383], lines 23-30).

Regarding claims 18-20, Rounthwaite teaches as follows:

a system and method that facilitates employment of an available filter best suited to identify junk/spam messages (see, e.g., col. 2, lines 31-34);

determining a performance level (false positive rate and false negative rate) for each of the modules (new filter and a seed filter) and (new filter is evaluated according to the false positive rate and the false negative rate associated with the seen filter, see, e.g., col. 2, lines 39-44);

comparing performance levels (comparing the false positive and negative rates of both of the new filter and the seed filter, see, e.g., col. 2, lines 45-49);

selecting a most appropriate one of the secondary filters based on the false

positive and negative rates in connection with a particular task (see, e.g., col. 5, lines 29-32); and

load control can be performed according to the false positive and negative rate of a particular system in order to route the messages between the filter systems (see, e.g., col. 18, lines 42-47).

Therefore Rounthwaite inherently teaches assigning rating and preventing a module with a low performance level from being used in a subsequent determination of a level of sameness.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Glass to include a plurality of filtering modules as taught by Rounthwaite in order to effectively select one of the plurality of filters based on the performance of each filter depending on the message type.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Glass et al. (hereinafter Glass)(U.S. pub. No. 2005/0060643 A1), Rounthwaite et al. (hereinafter Rounthwaite)(U.S. Patent No. 7,249,162 B2) and Horvitz et al. (U.S. Pub. No. 2004/0039786 A1) as applied to claim 1 above, and further in view of Horvitz (U.S. Patent No. 7,194,681 B1).

Regarding claim 7, Glass-Rounthwaite-Horvitz et al. teach all the limitations of claim except for using Bayesian analysis as a classification method.

Horvitz teaches that a method assigns a measure of priority to the document by employing a text classifier such as a Bayesian classifier or a support-vector machine classifier (see, e.g., abstract).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Glass-Rounthwaite-Horvitz et al. to include using Bayesian classifier as taught by Horvitz in order to effectively accomplish the text classification.

5. Claims 9, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glass et al. (hereinafter Glass)(U.S. pub. No. 2005/0060643 A1), Rounthwaite et al. (hereinafter Rounthwaite)(U.S. Patent No. 7,249,162 B2) and Horvitz et al. (U.S. Pub. No. 2004/0039786 A1) as applied to claim 1 above, and further in view of Ralston et al. (hereinafter Ralston)(U.S. Patent No. 6,842,773 B1).

Regarding claims 9, 11 and 12, Ralston teaches as follows:

a module analyzes word count in an email message (presorting messages based upon their size which inherently includes a module analyzing word count, see, e.g., col. 6, lines 53-55 and figure 3D);

a module analyzes a similarity of sender addresses (mail transfer agent, 204 in figure 2, analyzes a similarity of the sender's IP address with approved list 216 and block list 244, see, e.g., col. 4, line 58 to col. 5, line 34);

a module analyzes a similarity of network routing (remote open relay list, 828 in figure 8, can be queried to determine if a relay listed the header of an email message is an open relay, see, e.g., col. 16, lines 1-14); and

the message database, the remote open relay list, an approved list, a block list, a key word database and a local open relay list are used in determining if a received email message was most-likely sent from an unsolicited mailer (see, e.g., col. 4, lines 43-48).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Glass-Rounthwaite-Horvitz et al. to include a plurality of filtering modules as taught by Ralston in order to effectively determine if the received email message sent from an unsolicited mailer with the help of the plurality of filtering modules.

Response to Arguments

6. Applicant's arguments filed 7 January 2008, with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEONG S. PARK whose telephone number is (571)270-1597. The examiner can normally be reached on Monday through Friday 7:00 - 3:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. P./
Examiner, Art Unit 2154

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/Joseph E. Avellino/
Primary Examiner, Art Unit 2143